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**(54) Game controller**

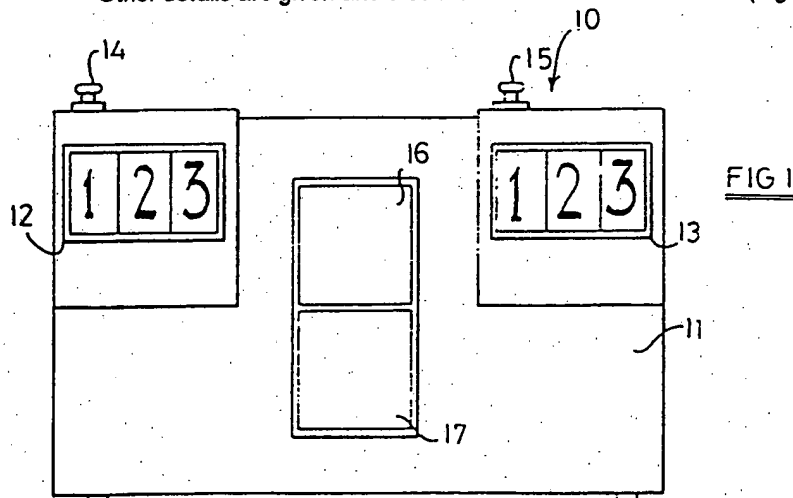
(57) The game controller which is used to control a game played by at least two individuals or teams comprises a master unit 10 and at least two slave units (30), each slave unit (30) including at least one player operable control 33 (e.g push button), the master unit (10) when set being responsive to the first control (33) operated and disabling the remainder of the controls (33), the master unit (10) and each of the slave units (30) being portable.

Units 10, 30 may be connected by leads 34 with jack plugs 35 - they may include batteries or integral transformers.

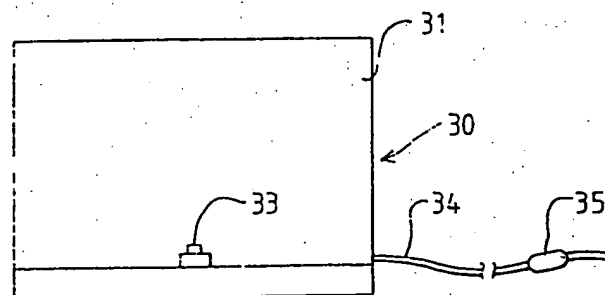
Master unit is shown with manually operable score boards 12, 13 - electronic score boards may be provided.

Master unit may have adjustable timer control (23, Figure 3) whereby a quiz master or referee may adjust the time during which players may answer questions or perform tasks.

Other details are given and a suitable control circuit illustrated (Figure 8).



**FIG 5**



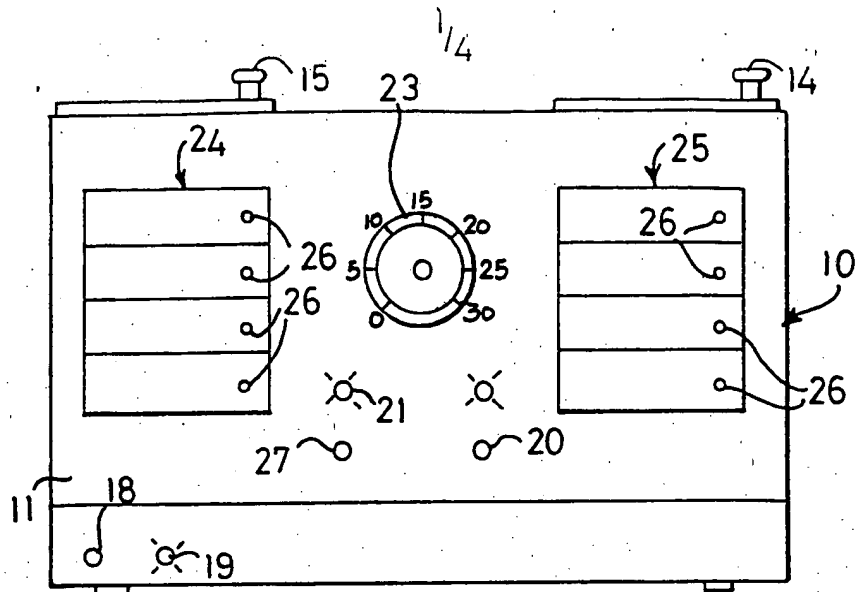


FIG 3

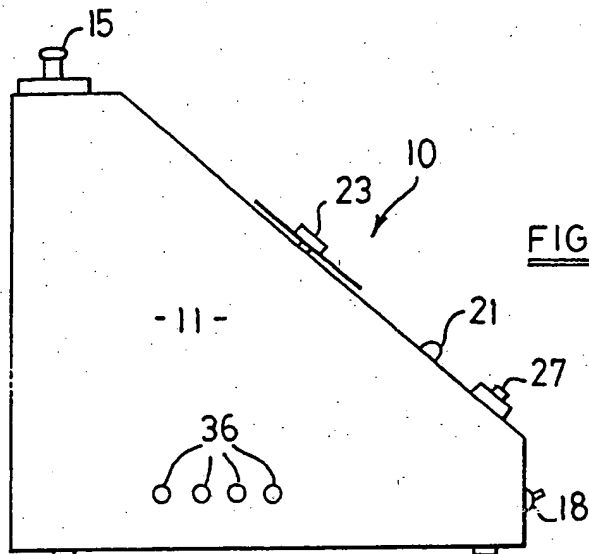


FIG 2

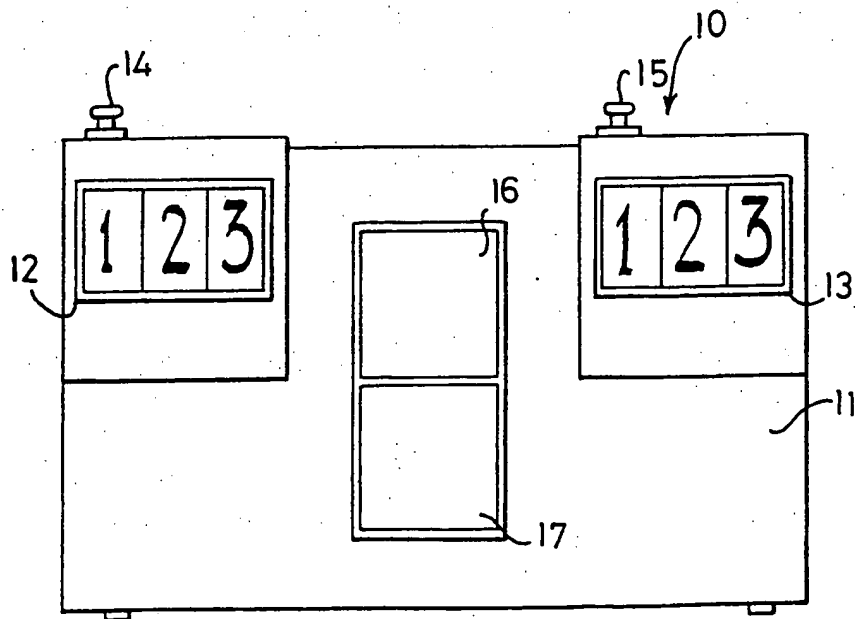


FIG 1

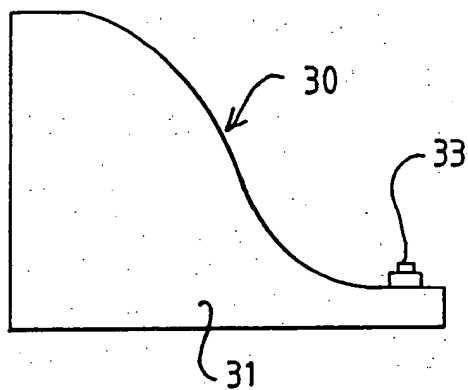
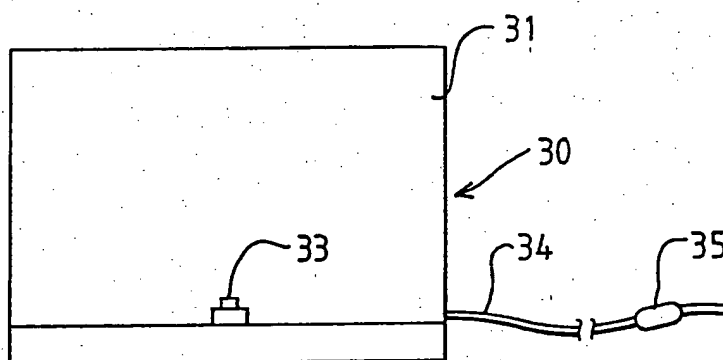
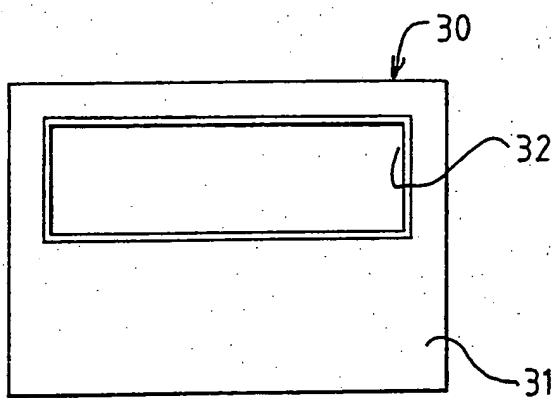
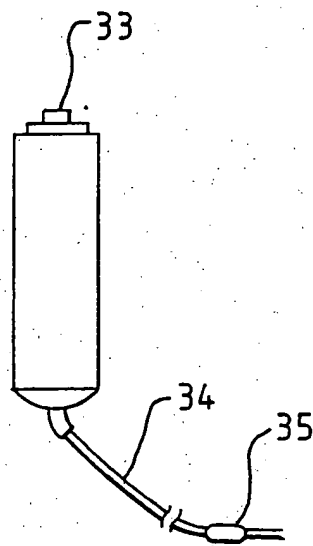
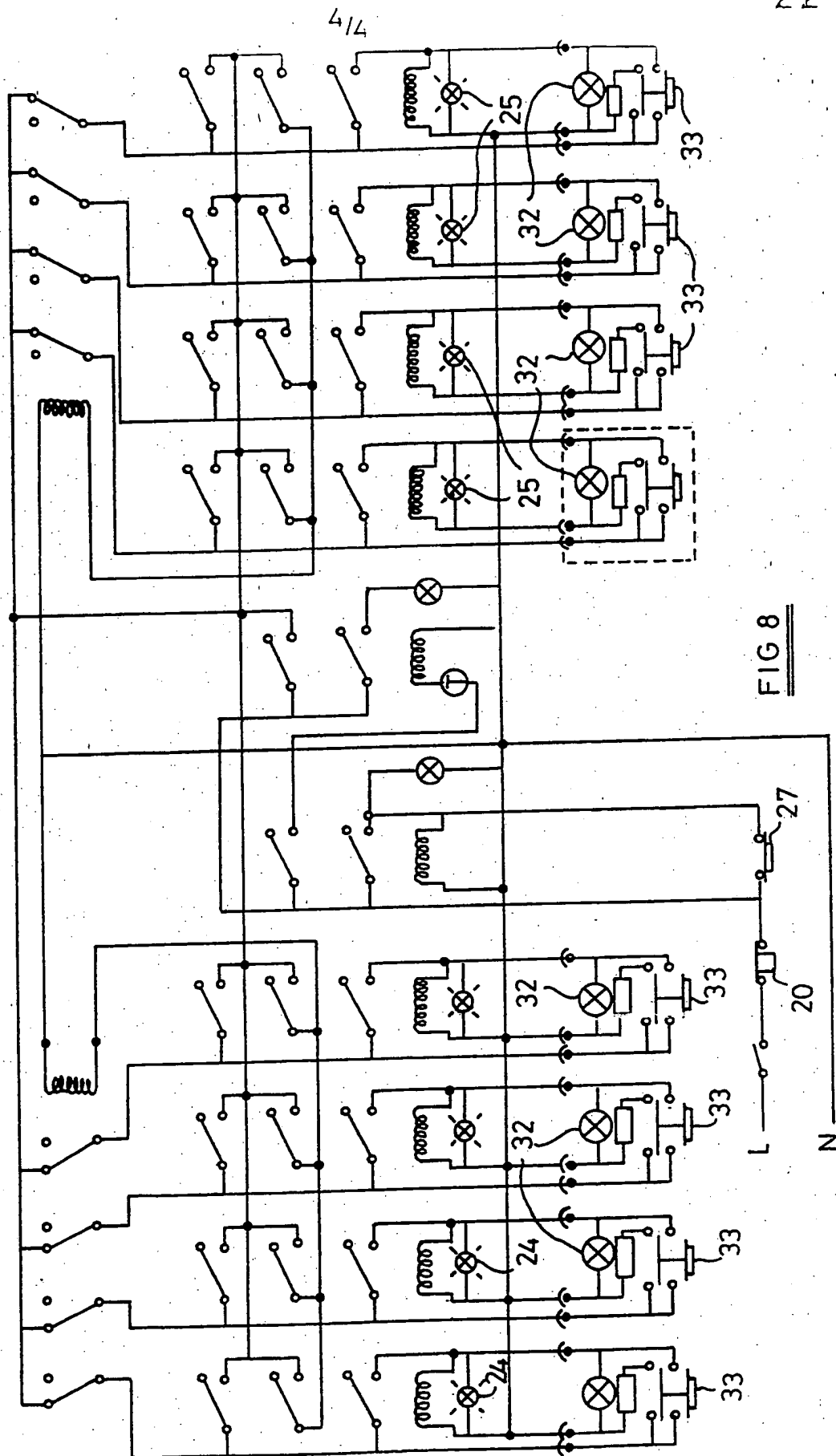
FIG 6FIG 5FIG 4

FIG 7



Title: "Game controller"

Description of Invention

This invention relates to a game controller which may be used to control a game played by at least two individuals or teams. More particularly but not exclusively the invention relates to a game controller for use in controlling a game in which individuals or teams answer questions set by a quiz-master or perform tasks set by a referee, each individual or team having a control such as a push button to operate to indicate to the quiz-master or referee that the individual or team is ready to answer the question or has performed the task, actuation of the first control disabling the other or the remainder of the controls.

According to one aspect of the invention I provide a game controller comprising a master unit and at least one slave unit, the or each slave unit including at least one player operable control, the master unit when set being responsive to the first control operated and disabling the remainder of the controls, the master unit and the or each of the slave units being portable.

Thus the invention provides a portable game controller which may be used to control a wide variety of quiz and other games and is particularly useful in youth groups, public houses, colleges and schools, and in the domestic situation.

Preferably, the entire game controller can be provided in a single pack with instructions to enable a purchaser to make any necessary electrical or other connections between the units.

Preferably where at least two slave units are provided, the slave units are each connectable to the master unit only by easy releasable connectors such as plug and socket connectors and do not require connection to each other.

The master unit may include a power unit such as a battery and may provide power to the or each individual slave unit although alternatively, the or each individual slave unit may have its own power source such as a battery.

Further alternatively, the master unit and/or the or each of the slave units may be powered from the mains, via a suitable voltage transformer if

required, which may be provided integrally with the respective unit or externally therefrom.

5 Where the master unit and/or the or each slave unit is powered from the mains, preferably each such unit has a plug and/or socket type power connector to enable power to be provided to the unit.

The master unit may include a reset control to enable a quiz-master or referee to reset the game controller each time after a control on the or one of the slave units has been actuated.

10 Further, the master unit may include an adjustable time delay means whereby after a predetermined time from a start time, all of the controls of the or each slave unit is rendered inoperative.

The master unit may include an indicator means to indicate to the quiz-master or referee and/or the players whether the control of the or any slave unit may be operated or is rendered inoperative.

15 The master unit may include a score board which may be electronic or manually operated by the quiz-master or referee as required, to enable each player's or teams score to be kept.

Further, the master control unit may include means to indicate to the quiz-master or referee which player or team actuated their control first.

20 Where the master unit is connected to the or each slave unit by connector leads, the master unit may have jack sockets or jack plugs on leads for connection to the or each slave unit.

25 The or each slave unit may comprise in addition to at least one control, an indicator such as a buzzer or light, to indicate when a player has actuated the control. The slave unit may be free standing on a suitable surface in which case the slave unit may include a panel which may be illuminated to display the players or teams name for example when the respective control is actuated, or the slave unit may comprise a unit intended to be hand held by an individual player.

30 The invention will now be described with reference to the accompanying drawings in which:

FIGURE 1 is a front view of a master unit of a game controller in accordance with the invention,

FIGURE 2 is a side view of the unit of Figure 1,

35 FIGURE 3 is a rear view of a unit of Figures 1 and 2,

FIGURE 4 is a front view of a slave unit for use with the master unit of Figures 1 to 3,



FIGURE 5 is a rear view of the unit of Figure 4, and,  
FIGURE 6 is a side view of the unit of Figures 4 and 5,  
FIGURE 7 is a side view of an alternative display unit for use with the  
master unit of Figures 1 to 3, and,

5        FIGURE 8 is a simple circuit showing the connections between the  
master unit and four individual slave units.

Referring to figures 1 to 3, a master control unit 10 for a game  
controller includes a housing 11 in which an electrical circuit is contained,  
along with a power unit such as a battery.

10        The front of the unit 10 as illustrated in figure 1 includes two manually  
operable score boards 12,13, of the flick-over type, operated by a quiz-  
master or referee via respective push button controls 14,15. Also, on the  
front of the housing 11, there are two panels 16,17, which may alternatively  
be lit. Panel 16 indicates that play is in progress i.e. in a quiz panel 16 may  
15        be lit when players have questions put to them by the quiz-master, whereas  
panel 17 is illuminated to indicate that the players have run out of time.  
Operation of the unit will be described in more detail hereinafter.

In use, the front of the unit 10 is visible by the players and an audience  
where present, whereas the rear of the unit 10, as illustrated in figure 3, is  
20        visible to the quiz-master or referee only.

The rear of the housing 11 has a conventional toggle on/off switch 18  
and low-power indicator light 19 to indicate when the unit 10 is switched on.  
A reset control 20 is provided which may be operated by the quiz-master or  
referee during a game as described hereinafter. Also, an indicator light 21 is  
25        provided which is illuminated whenever panel 16 on the front of the unit 10 is  
illuminated, and a further indicator light 22 is provided which is illuminated  
whenever panel 17 is illuminated.

The rear of the housing 11 also has an adjustable timer control 23  
whereby the quiz-master or referee may adjust the time during which players  
30        may answer questions or perform tasks i.e. while panel 16 (and indicator 21)  
is illuminated. It can be seen that the time may be altered from 0 to 30  
seconds although in an alternative arrangement, a larger time may be  
selectable if required, or means may be provided to disable the timer  
whereby the timing of the game is purely at the discretion of the quiz-master  
35        or referee.

The game controller 10 is intended for use in a game where two teams  
of four players play. The rear of the housing 11 includes two sets of four

panels as indicated at 24 and 25. Each panel may be illuminated entirely or a light indicator such as shown at 26 may be lit to indicate to the quiz-master or referee which player actuated the control of their slave unit first. Again details of this are given below.

5        The master unit 10 includes a start control 27 which the quiz-master or referee may operate at the beginning of the timed period during which players may answer questions or perform tasks.

      Of course, in a game with less than 8 players, less panels in the sets 24,25 of panels may be provided. Alternatively, where more than two teams  
10       are playing, or individuals are playing a game only, if desired, the master control unit 10 may comprise a corresponding number of panels 24,25.

      Other modifications may be made to the master unit. For example, in place of the mechanical score boards 12,13, one or more electronic score boards may be provided to keep the teams and/or individual players' scores.  
15       Instead of push button controls 20,27, and a rotatable timer control 23 as shown, controls of other types may be provided as required.

      Although as described, the housing 11 includes a power unit comprising a battery, if desired, the master unit 10 may be powered from the mains either directly from a connector lead provided with a plug, or from a transformer. Preferably the master unit operates on low voltage and so if the  
20       mains voltage power is supplied to the master control unit, the master unit is preferably provided with an integral transformer.

      Referring now to figures 3 to 6, one embodiment of a slave unit 30 for use with the master unit 10 of figures 1 to 3 is shown. The slave unit 30 is  
25       free standing and includes a housing 31 which houses a power unit such as a battery which is used to illuminate a panel 32 provided on a front face of the unit, which may have a players or teams name provided on it.

      The slave unit 30 otherwise includes a control 33 comprising a push button 33 which is connected to a buzzer within unit 30 also powered from  
30       the battery, and to a connector lead 34 which is provided with a jack plug 35 which in use is received in a socket 36 (see figure 2) provided on a side of the housing.

      Instead of a push button control 33 any other suitable control may be provided, and of course the housing 31 may be of any desired shape. The  
35       panel 32 is optional.

      Figure 7 shows an alternative slave unit which is intended to be hand held but has a control 33' again comprising a push button which when

actuated, can provide a signal to the master unit 10 via a connector lead 34' and jack plug 35'.

In use with the master unit 10 of figures 1 to 3, eight slave units 30 are provided, one for each player of each team.

5 The slave units 30,30' of the players of one team are all connected to the sockets 36 provided on one side of the housing 11 of the master unit, whereas the slave units 30, 30' of the players of the other team are connected to sockets provided on an opposite side of the housing 11 of the master control unit 10.

10 In use, a quiz-master or referee would set the timer control 23 to a predetermined time period for example 15 seconds, and after asking a question or setting a task, the quiz-master or referee actuates the start control 27. As a result, the indicator panel 16 and indicator light 21 are illuminated, and a fifteen second countdown period is commenced.

15 If any of the players is ready to answer the question, or has completed the given task within the fifteen seconds, the player may actuate his respective control 33. As a result, the associated panel in either of the panel banks 24 or 25 of the master unit 10 would become illuminated to indicate to the quiz-master that a control 33 has been actuated and the respective panel 20 32 of the slave unit 30 may be lit, and the buzzer sounded.

Actuation of any control 33 disables the controls 33,33' of all of the remaining slave units 30,30'.

If the question is answered correctly, or the task is completed correctly, the quiz-master or referee may actuate either of the controls 14 25 or 15 to award the requisite number of points to the appropriate team.

Before asking a further question or setting a further task, the reset control 20 is actuated to return the controller to a ready condition.

Figure 8 shows one example of a suitable control circuit which may be used with the master control unit 10 and slave units 30 of figures 1 to 7.

30 In this arrangement, electromagnetic relays are used for signalling and latching although in another embodiment, solid state circuitry may be provided. Various modifications are possible to the circuit of figure 8 whilst the game controller would still operate in the manner described.

35 The features disclosed in the foregoing description, or the accompanying drawings, expressed in their specific forms or in terms of a means for performing the disclosed function, or a method or process for attaining the disclosed result, or a class or group of substances or compositions, as

appropriate, may, separately or in any combination of such features, be utilised for realising the invention in diverse forms thereof.

## CLAIMS

1. A game controller comprising a master unit and at least two slave units, each slave unit including at least one player operable control, the master unit when set being responsive to the first control operated and disabling the other or remainder of the controls, the master unit and each of the slave units being portable.
2. A controller according to claim 1 wherein the slave units are each connectable to the master unit only by easy releasable connectors.
3. A controller according to claim 2 wherein the releasable connectors comprise jack plugs and sockets.
4. A controller according to claim 3 wherein the master unit has jack sockets or jack plugs on leads for connection to jack plugs or sockets of each slave unit.
5. A controller according to any one of the preceding claims wherein the master unit includes a power unit.
6. A controller according to claim 5 wherein the master unit provides power to each individual slave unit.
7. A controller according to claim 5 wherein each individual slave unit has its own power source.
8. A controller according to any one of claims 1 to 4 wherein the master unit and/or each of the slave units are powered from the mains, via a suitable voltage transformer.
9. A controller according to claim 8 when the transformer is provided in the master unit and each slave unit has a plug and/or socket type connector to enable power to be provided to the unit from the master unit.
10. A controller according to any one of the preceding claims wherein the master unit includes a reset control to enable a quiz-master or referee to

reset the game controller each time after a control on one of the slave units has been actuated.

11. A controller according to any one of the preceding claims wherein the master unit includes an adjustable time delay means whereby after a predetermined time from a start time, all of the controls of the slave units are rendered inoperative.

12. A controller according to any one of the preceding claims wherein the master unit includes an indicator means to indicate to the quiz-master or referee and/or the players whether the control of any slave unit may be operated or if the control is rendered inoperative.

13. A controller according to any one of the preceding claims wherein the master unit includes a score board which is electronic or manually operated by the quiz-master or referee as required, to enable each player's or teams score to be kept.

14. A controller according to any one of the preceding claims wherein the master control unit includes means to indicate to the quiz-master or referee which player or team actuated their control first.

15. A controller according to any one of the preceding claims wherein each slave unit comprises an indicator such as a buzzer or light, to indicate when a player has actuated the control.

16. A controller according to any one of the preceding claims wherein the slave unit is free standing and includes a panel which is illuminated to display the players or teams name when the respective control is actuated.

17. A controller according to any one of claims 1 to 15 wherein the slave units each comprise a unit intended to be hand held by an individual player.

18. A controller substantially as hereinbefore described with reference to and as shown in the accompanying drawings.

19. Any novel feature or novel combination of features as herein defined and/or shown in the accompanying drawings.